

D. Design and Operation of Individual Component Assemblies

a) Finger-tip Control Hydraulic Pump

The finger-tip control hydraulic pump is a single piston pump; which serves the purpose of supplying the hydraulic system and the oil pressure container with oil. The maximum pressure (refer to Job No. 80-0) is controlled by a safety valve. The pump can be adjusted to one of two pressure stages. This means that under extreme summer and winter temperature conditions, the response speed of all consumer units can be modified. It is also possible, e. g., to minimize the risk of injury through excessive closure pressure of the windows by suitable pressure reduction.

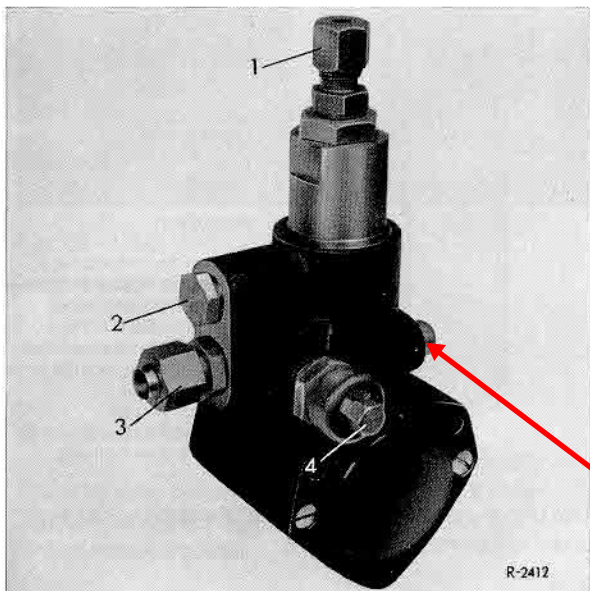


Fig. 80-1/4

- 1 Pressure line connection
- 2 Safety valve
- 3 Suction line connection
- 4 Delivery pressure valve (adjustable)

BOSCH PUMP SHOWN

The finger-tip control hydraulic pump is fitted at the right side of the engine and is driven by a V-belt fitted on the crankshaft of the engine.

An open-end wrench is used for adjustment of the delivery pressure valve as follows:

- Lefthand stop: minimum value = MATCH RED BLUE MARK 175 bar gauge pressure (1).
- Righthand stop: maximum value = MATCH BLUE MARKS 200 bar gauge pressure.

NOTE: TO REDUCE OR INCREASE THE PRESSURE OF THE PUMP. PLEASE ROTATE THE ADJUSTMENT COUNTER CLOCKWISE TO REDUCE. THIS IS FROM THE BACK OF THE PUMP.

PUMP IS SET A 2800 PSI

PUMP HAVE TO BLEED WHILE RUNNING THE CAR FOR 10 SECONDS MAX WITH BLEEDER OPEN TO PRESSURIZE

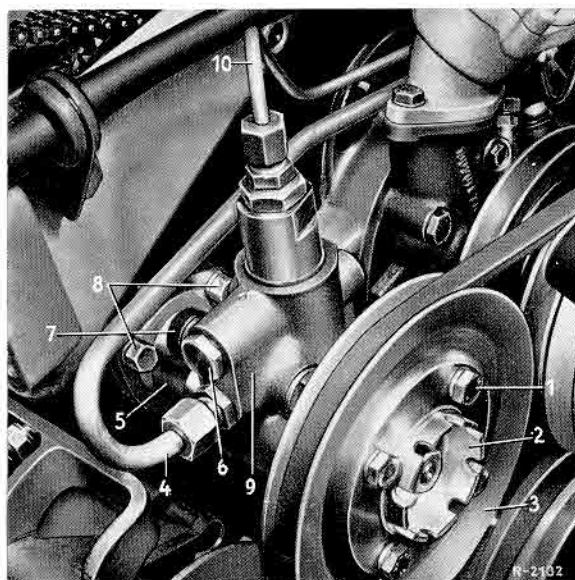


Fig. 80-1/5

Layout of finger-tip control hydraulic pump

- 1 Hex. bolt
- 2 Threaded hub
- 3 Adjustable V-belt pulley
- 4 Suction line of oil supply reservoir
- 5 Mounting bracket for finger-tip control hydraulic pump
- 6 Safety valve
- 7 Pressure delivery valve (adjustable)
- 9 Finger-tip control hydraulic pump
- 10 Oil pressure line to oil pressure container

remove bleeder screw and let fluid pour out

b) Oil Pressure Container

Up to chassis end No. 367 vehicles are provided with a diaphragm container.

As from chassis end No. 368 piston containers will be installed.

1. Diaphragm Container

The diaphragm container is divided into two separate chambers by a diaphragm (3). Chamber (4) is pressure-filled with a compressible medium (nitrogen). Chamber (2) is filled with oil by the finger-tip control hydraulic pump and operates against the pressure of the nitrogen up to a maximum pressure gradient (refer to Job No. 80-0). The available energy for the hydraulic system is therefore obtained by the dominant pressure of the nitrogen on the oil. The diaphragm container thereby guarantees a limited number of hydraulic operations (e. g. operating windows 10 – 15 times) when the engine is stopped.